

# An Address ON SCIENTIFIC OBSERVATION.

INTRODUCTORY ADDRESS DELIVERED AT THE LONDON SCHOOL OF TROPICAL MEDICINE.

BY

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I AM conscious that the address which I have been invited to deliver at the opening of the session of the London School of Tropical Medicine is not expected to be like those addresses which are delivered at the various medical schools in London, where many of the students are entering for the first time upon the course which admits them to their profession. I am aware that I have the honour to address those who are for the most part advancing in their career, and who come here to perfect themselves in the latest developments of a comparatively new and very difficult branch of medicine. Consequently, I am addressing those to whom it would be an impertinence for me to give advice as though they were ordinary students, and for whom my views concerning the pursuit of medical studies could scarcely possess either interest or authority.

On the other hand, I cannot be expected to devote my address to any subject connected with tropical medicine, for I have no knowledge of this branch of study—or, indeed, of any branch of study directly connected with the profession of medicine.

Perhaps I may claim to have a certain personal reason to understand the value and importance of your studies, for both my grandfather and father passed a great part of their lives in South America, and I myself was born there; so that I have heard much from my relations of the ravages of yellow fever, and was the better able to appreciate the remarkable story of the suppression of the fever in Rio de Janeiro as narrated in the first South American supplement of the *Times*.

But I take it that I am asked to address you because I happen to be Principal of the University, and I have to think how I can best say something useful to you in that capacity.

Now, the University of London is charged with the duty of organizing higher education and research in the London area, and, in the attempt to discharge this duty, is brought into close contact with your profession in all its branches and in many of its aspects.

I think that the universities have a very special duty in relation to the professions—whether of engineering, law, or medicine. For these professions they cannot hope to supply, and it is not their duty to supply, the complete educational course. The engineering student and the legal student can no more dispense with the practice of the engineering shops and the law courts than the medical student can dispense with the clinical practice of the hospital. It is the first duty of the university to provide the introductory scientific training in each profession, which will be supplemented and completed by this practical training and experience. Further, in these professional subjects it is of the greatest importance that the university teaching should be in intimate association with the practice. Only under such conditions will the university be able to keep in touch with the latest developments, to appreciate the problems of most pressing importance which claim investigation, and to keep itself properly equipped for these purposes. It is, after all, only at a university that a class of man exists who has the requisite professional and scientific knowledge as well as the leisure and opportunity to conduct such investigations; and at the university he is sufficiently aloof from active and exacting professional work to be able to take a wide scientific survey of the subject. Moreover, he is there in an intellectual atmosphere among the teachers and investigators of other subjects, with whom he can compare methods and discuss results, whom he can interest in his problems, and from whom he can often obtain most valuable assistance.

This co-operation of workers in different subjects, whether merely by advice and criticism, or by direct collaboration, should be one of the most valuable and effective features of university work, and one which can scarcely be secured under any other conditions. I think it is a strange and most unfortunate fact that on the whole so little use is made of their colleagues by university investigators, considering what opportunities lie to hand.

The professions should, I think, more consistently and systematically take their problems to the universities for solution, and more frequently claim the interest and assistance of university workers. For it is also the duty of the university to encourage that advanced work and investigation which cannot be conducted in the courts, the shops, and the hospital. There will always be much such work to be done, for in places which are devoted to practice there is little time or opportunity to carry on researches of which the practical outcome is not evident, and yet a great deal of the most important investigation is of this character. Nothing can be more desirable than the development of departments of research at the hospitals and in the engineering shops, as, indeed, in all manufacturing and business establishments where the practical applications of science are conducted; but these will never diminish the necessity of similar departments in the universities, even from the point of view of the practical requirements of industry and commerce.

No work can better engage the energies of a university in the various branches of science than pioneer work of which the outcome is uncertain, but which frequently turns out to be in the end the most fruitful of all. One cannot expect professional men or professional institutions to devote much time to such work, for it would lead them too far from the track of their professional duties. But let such pioneer work, involving new problems, new methods of research, trial trips into the unknown, be undertaken by ardent and sanguine young men in the university laboratories, and it often develops in a short time into results of the greatest possible importance for the professional man, and becomes part of the regular practice of the hospital, the engineering shops, and the centres of manufacture and industries.

Let me only quote, confining myself to things with which I have some acquaintance, such work as the microscopic study of rocks and metals, which have revolutionized the sciences of geology and metallurgy. They could scarcely have been taken up and pursued successfully in their initial stages except by university professors and investigators, but they have now, under the name of metallography, become part of the regular work of practical and professional engineers. Many of the most prominent of recent discoveries, such as the rare earths used for the incandescent gas-light, the  $\alpha$  rays, radium, and radioactivity, etc., have resulted from researches which could scarcely have originated except in universities. There must be numbers of similar examples in the range of medical science.

And so the closer the connexion which is maintained between professional and technical institutions on the one side and the universities on the other, the greater will be the benefits secured both by pure science and professional practice. Their two intimate points of contact, to which I have already called your attention, being the general scientific education which the university provides for professional men at one end of their university career and the research to which it invites them at the other.

If, however, the investigations at the universities are to be carried on by men who are subsequently to be leaders in their profession—and this is much to be desired—it is clear that there is the greatest need for such provision as will enable those who have completed their university course to stay on for one or two years engaged upon this work in the university laboratories before they become absorbed by their professional duties. If we are to maintain a high order of advanced work at the universities and to supply the professions with men who have learnt to know the meaning and the method of such work while they are still able to learn, nothing can be more useful than scholarships and fellowships for advanced study and research which will enable students to remain for a post-graduate period.

In the medical profession I am glad that opportunities are now being provided to an increasing extent, and fore-

Dr. PASTEUR, Mr. MAKINS, Dr. SQUIRE, Mr. PEARCE GOULD, Mr. ARMIT, and Dr. BASHFORD joined, it was resolved:

That it is advisable that distinguished laymen be invited to associate themselves with the work of the Congress, and that such invitations be in the hands of the Executive Committee.

#### *Date of the Congress.*

The date of the Congress led to considerable discussion. The date proposed by the Advisory Board was from July 29th to August 6th, 1913, and a resolution to this effect was formally moved by Mr. MAKINS. He said, however, that the choice of a date was extremely difficult for several reasons, and he hoped the General Committee would carefully consider the matter before coming to any resolution. On the one hand, the Congress could not be earlier than the date proposed, as our German colleagues could not attend if it were, and, indeed, the date proposed was earlier than that which Dr. Pavy, after conference with the German representatives, had originally proposed in the Advisory Committee; secondly, Bank Holiday came in the middle of the proposed meeting, which might possibly lead to considerable inconvenience; and a third difficulty was that the proposed date clashed with the meeting of the British Medical Association. He therefore moved the resolution rather to open the subject for discussion than to support strongly the date originally fixed. Dr. NORMAN MOORE seconded the proposal.

Mr. BUTLIN said that he had been present when the date had been fixed by the Advisory Board, and had himself not realized that the British Medical Association made it so regular a custom to meet at that date, as he had since found was the case. He thought it would be a pity if some arrangement could not be come to with the Association.

Sir MALCOLM MORRIS pointed out that if, as was customary, royal patronage was sought for the Congress, the date of the meeting could not be settled without consulting the wishes of royalty.

Several speakers emphasized the extreme undesirability of creating ill-will in a matter of this kind, and said that it was of the utmost importance that the spirit in which the Congress was to be got up should not be impaired by any feeling of hostility.

It was officially resolved, on the motion of Sir HENRY MORRIS, that this matter be not decided that day, but that it be left in the hands of the President and of the executive officers to settle the date, and that they be at liberty to receive any communications from, and to confer with, the officers of the British Medical Association.

## THE INTERNATIONAL CANCER CONFERENCE.

THE second International Conference on Cancer was held in Paris from October 1st to 5th, under the patronage of the President of the French Republic. The opening ceremony attracted a large audience, presided over by M. Doumergue, Minister of Public Instruction, who was supported on the platform by His Excellency von Czerny, President of the International Association for Cancer Research; Professor Bouchard, President of the Association Française pour l'Etude du Cancer; Professor Pierre Marie, Vice-President; together with Professor Delbet and Dr. Ledoux-Lebard, its Secretaries, as well as by Professor George Meyer, who is the Secretary of the International Association and of the German Committee in Berlin. In addition, there were present on the platform, at the invitation of the French Foreign Office, the official representatives of some twenty foreign Governments. A gratifying feature was the fact that the official delegates of European Governments were, in several cases, active investigators whose scientific achievements in the study of cancer have obtained for them an international reputation. The countries represented, in addition to France, comprised Great Britain, the German Empire, Württemburg, Bavaria, Austria-Hungary, Denmark, Sweden, Russia, Greece, the United States, Japan, Argentina, Bolivia, Brazil, Chili, China, Peru, Luxembourg, Mexico, Turkey, and Persia. Great Britain was represented by the Director of the Imperial Cancer Research Fund.

#### Welcome to Delegates.

M. DOUMERGUE, in opening the Conference, emphasized the importance of the disease it had been called together to discuss; statistics showed the extent of its ravages, and proved that it was the cause of deaths ascribed in earlier times to other diseases. He welcomed the delegates from twenty-two foreign countries, mentioned the work of Czerny, of Ehrlich, and that of the Imperial Cancer Research Fund, directed by Dr. Bashford with so much zeal and science, and whose presence M. Doumergue stated was of good augury for the success of the work of the Conference and an honour and a pleasure to them all. M. Doumergue then outlined the history of organized cancer investigation in France, alluded to efforts made by Verneuil and Duplay in 1892, and to Poirier's initiative in 1906 carried through successfully, after his death, by Delbet. M. Doumergue instanced as a characteristic of our generation the reunion in spontaneous congresses of the representatives of various nations for the purpose of relieving physical, social, and moral miseries; he enlarged upon the significance of the unanimity of these humanitarian endeavours, extolled the advantages accruing from exchange of views, and from the dissemination of discoveries, and pointed to the futility of isolation. In his opinion the publicity obtained for the proceedings of such conferences was bound to bear fruit in a profitable collaboration between the medical profession, the public in general, and those actually suffering from cancer.

The President of the Conference, Professor von CZERNY, followed. He thanked the French Government, the French Association, and the Medical Faculty of the University of Paris for the invitation to hold the Conference in Paris. He stated his opinion that cancer was increasing, that there were "cancer houses" and "cancer districts," and that a parasitic etiology appeared probable. Having alluded to the association of cancer with irritants and trades, v. Czerny referred to the possibilities of surgical treatment, both alone, and when combined with electro-therapeutics. Professor LANDOUZY spoke on behalf of the Faculty of Medicine, and Professor BOUCHARD as president of the French Association. M. Doumergue then called upon the foreign delegates in turn, commencing with the British representative. Dr. BASHFORD said that to His late Majesty King Edward must be assigned a large share in awakening interest in Great Britain, in its colonies and dependencies, as to the great importance of solving the problems of cancer, and to King George must be assigned great credit for maintaining and stimulating that interest. Cancer research in England enjoyed, in consequence, a very large measure of official and public support, and Dr. Bashford's presence was a sign of the sincerity of British sympathy with their efforts.

In Great Britain they had not a society or committee modelled upon the lines of those affiliated with the International Association, and Dr. Bashford explained that, as he was there as the representative of the British Government at the invitation of the French Foreign Office, therefore he was not present as an actual member of the International Association, but rather as a guest of the French Association. As was well known to his fellow delegates, Great Britain had hitherto held aloof from membership of the International Association. That abstention implied no unwillingness to collaborate, practically, with other nations; on the contrary, it was common knowledge how materially British investigators had assisted their foreign colleagues. The abstention of Great Britain from affiliation with the International Association had no political significance whatsoever, no matter what might have been inferred to the contrary; it was based upon purely scientific grounds only. The presence of an official representative of the British Government was due to the importance attached in all quarters, from the highest to the lowest, to the study of cancer in England, and was, on the one hand, an official recognition of the success with which it had been organized in Great Britain by a number of institutions in addition to the Imperial Cancer Research Fund, of which he (Dr. Bashford) had the privilege to be the Director. On the other hand, the presence of an official representative of the British Government was evidence of the interest of all in England in the proceedings of the International Association, and, in particular, in the proceedings of this Second International Conference. Although not at present a member of the Inter-

international Association—a fact which he felt bound to emphasize—Dr. Bashford stated that he esteemed it a great honour, a privilege, and a pleasure to be the guest of the French Association; in previous years he had entertained the same sentiments when he had been the guest of the German Association in Berlin and in Heidelberg. Although in England they inclined to the belief that the present was rather a time for work—much work—in the hope of advancing knowledge of a disease of which they knew practically nothing, and could do little or nothing to prevent, rather than a time for the holding of conferences, which they thought were premature, since they had nothing revolutionary to discuss or to agree upon, still such a conference as the present might fulfil—indeed, a presence proved that he hoped it would fulfil—a useful purpose.

The other delegates followed. The opening proceedings occupied the entire forenoon of Wednesday, October 1st, and concluded with the reports of Professor George Meyer of Berlin and of Professor Delbet of Paris, the official secretaries of the Conference. Professor MEYER counted the number of committees which had been organized in different countries after the plan of the German Cancer Committee founded in 1900, and examined his conceptions of their relations to the International Association—its most important development—with which many of those committees are affiliated. Professor DELBET protested in courageous terms against the extent to which quackery was permitted to debar cancer sufferers from the only rational treatment available at the present time—namely, a surgical operation, which, performed early enough, gave good hopes of lasting cure.

#### *Scientific Proceedings.*

The scientific proceedings were taken in six sections, which met consecutively: (1) Histology and Histological Diagnosis; (2) Statistics; (3) Clinical Diagnosis; (4) Treatment; (5) Etiology and Experimental Pathogenesis; (6) Comparative Pathology. As the outcome of a proposal made by Professor von HANSENNAN of Berlin, and supported by Professor DELBET at the meeting of section (1), the Conference appointed a committee to draw up an international nomenclature of new growths, this was the only resolution adopted by the Conference. The discussion on statistics and statistical methods revealed wide divergences of opinion, the methods and results expounded by Professor GEORGE MEYER of Berlin meeting with such adverse criticism that no progress appeared to be made towards the compilation of comparable international cancer statistics advocated by himself and Dr. LEDOUX-LEBARD.

Dr. OTTO of Copenhagen gave an interesting account of the duration of malignant disease of the digestive tract, demonstrating the shortness of the period between the first symptoms and death in 196 cases, and concluding that the first symptoms appeared and the clinical diagnoses were made subsequent to a long latent period, which the duration depended on anatomical and other factors.

The papers contributed to Section 3 on clinical diagnosis—PALTAUF of Vienna, WEINBERG of Paris, and on the chemistry of cancer by BEEBE of New York, illustrated the impotence, as yet, of biochemical and serological procedures to replace older methods of diagnosis. Several speakers expounded their views on the necessity of enlightening the public as to the early symptoms of cancer, one speaker going so far as to claim that his propaganda during the past ten years had resulted in many women seeking advice for cancer of the uterus at an earlier stage than formerly, with the result that a marked improvement had taken place in the results of operation. Von CZERNY laid emphasis on the fact that the education of the medical profession was just as essential to the early diagnosis of cancer; he instanced cases of the imperfect examination of patients for its presence. An unpleasant feature of this direct appeal to public opinion was the distribution of a number of competing brochures drawn up by different authors, some of whom set forth their special qualifications and their membership of cancer committees. It was not advisable at all, it seemed certain that such brochures should be issued anonymously to the public, after careful compilation and scrutiny, by a responsible body of men,

and not by individuals whose practice may benefit thereby.

#### *Treatment.*

The section on treatment listened to some very able papers notably by Professors DELBET, KORTEWEG, ROVING, MARIE, VIDAL, and RECAMIER. They were followed by lively and interesting discussions turning mainly upon the value of such adjuvants to surgical treatment as fulguration, x rays, radium, Coley's fluid, etc. SEGOND and others had little to say in favour of fulguration, which was defended with some heat by KEATING-HART. The possibilities of radium were very fully discussed without any definite conclusion being arrived at; it seemed that few of the speakers were prepared to employ it, without previous resort to surgery, in other than small superficial lesions. The general impression conveyed by the discussion was that, although many speakers had employed radium, they had in their possession quantities far too small to enable them to resolve the apparent contraindications they discussed!

#### *Immunity.*

In the fifth section v. DUNGERN of Heidelberg gave a lucid and impartial account of the immunity reactions to transplanted cancer; he disagreed with the pessimistic conclusions arrived at by Ehrlich as to the existence of "atretic" immunity, and associated himself with the more optimistic conclusions of the Imperial Cancer Research Fund, to the effect that the phenomena in question were due to active immunity. Dr. HARVEY GAYLORD, of Buffalo, brought forward evidence which he thought showed also the existence of a passive immunity having therapeutic possibilities. Dr. FICHERA described observations in which he had applied the results obtained by immunizing animals with normal tissues to the treatment of cancer in man. He claimed to have caused the disappearance or reduction in size of true malignant new growths in man by repeatedly inoculating human placenta and human fetal-tissues.

#### *Cancer Carriers.*

Dr. BORREL gave an account of his well-known views on the possibility of cestodes and *Demodex* fulfilling the part of intermediate hosts or carriers of a hypothetical cancer virus. Dr. Borrel's guarded statements called forth a vigorous criticism on the part of DURANTE. STICKER described a village in which he stated 50 per cent. of the deaths had been due to cancer of the stomach during eighteen years.

#### *Cancer in Animals.*

In the section of comparative pathology PETIT and Miss PLEHN described a number of tumours in animals; v. HANSENNAN and BORST pointed out that certain fish tumours, admitted by Miss Plehn to be due to myxobolus infection, could throw no light upon cancer.

Dr. HARVEY GAYLORD described epidemics of enlarged thyroid in trout which he appeared inclined to regard as epidemics of cancer of that organ.

Professor C. O. JENSEN described certain tumours occurring on the sugar and other beets; no causative parasites were found in them. Those tumours he had been able to transplant into other beets, and, from their general biological behaviour, he was inclined to assign to them an analogous position in the vegetable kingdom to that occupied by cancer in the animal kingdom.

Throughout the whole scientific proceedings it was evident that there were two distinct schools of thought, representing respectively those who cautiously, and perhaps more vaguely than in the past, believe in a parasitic etiology, and those who regard such an etiology as quite incompatible with the natural history of cancer. Discussion on these lines was even more animated in the private intercourse between the delegates, as, indeed, it was on many other topics arising out of the communications to the Conference, and on the method of its organization, and its relations to the International Association.

#### *Entertainments.*

The French Association pour l'Etude du Cancer must be heartily congratulated on carrying through a very difficult task with éclat. The hospitality extended to the delegates was of the most lavish and enjoyable nature. Dr. Henri de Rothschild and Baroness de Rothschild

entertained all the delegates at their Chateau l'Abbaye des Valx-de-Cernay, whither they were conveyed by special train on Sunday, October 2nd. His Excellency von Czerny entertained at the Palais d'Orsay in true Parisian and most attractive style. Professor Bouchard conveyed the delegates to Chantilly, where they were conducted over the treasures by the keeper of the famous chateau, and invited by Professor Bouchard to one of those déjeuners for which he is renowned, even in France. The Paris Municipality held a reception in the Hôtel de Ville, and much private hospitality was shewn by the officers and members of the French Association.

#### Closing Meeting.

The closing phases of the Conference took place at the official dinner at the Palais d'Orsay, presided over by Professor von CZERNY and attended by all the officials, official delegates, and most of the members of the Conference. Having thanked in French all who had contributed to the success of the Conference, and especially its Paris hosts, von Czerny continued in German and made a direct appeal to Dr. Bashford, than whom there had been no more diligent attendant at their proceedings, to use his influence to obtain the adhesion of Great Britain to the International Association. He praised the organization of cancer research in England and its colonies, and placed a high value upon the work the Imperial Cancer Research Fund had performed and was accomplishing, saying that the International Association had need of Dr. Bashford's support, experience, and assistance. As President he expressed his hope that the objections which hitherto had stood in the way would be removed during the three years elapsing before the Conference again met in Brussels or before a preliminary meeting was held in Dresden next year; and in feeling words appealed to Dr. Bashford as his personal friend to be present with them then, not only, he hoped, again as a Government delegate and a guest, but also as a member.

In reply, Dr. BASHFORD, speaking in English, spoke of the interest with which he had followed the proceedings of the Conference and assured his hearers that his presence attested to the fact that in England they had no objection, in principle, to such conferences, provided that they fulfilled a useful purpose, nor had they the least objection to an international association for the study of cancer, provided its international character was assured, and it was the outward expression of a workable, practicable scheme of collaboration. Speaking as the Director of the Imperial Cancer Research Fund, Dr. Bashford said that he need hardly remind them how substantially that institution had endeavoured to support foreign workers, great and small, and in many countries, by distribution of material and other means, as well as by receiving them as guests in its laboratories. This had seemed to them international collaboration of a practical and useful kind. Addressing the more prominent German delegates by name, and speaking in German, Dr. Bashford assured them how highly he valued the foreign membership of the German Committee and his intercourse with its members. Having expressed the honour and the pleasure it had been to him to be again associated in Paris with his German colleagues, he congratulated von Czerny on the fruitful result of ideas first mooted at the opening of his Cancer Institute in Heidelberg in 1906, from which had sprung this second, larger and successful international conference. Speaking in French, Dr. Bashford thanked the President, officials, and members of the French Association for their magnificent hospitality.

Graf v. HUTTEN-SCHAPPI made a most felicitous speech in French on behalf of his German colleagues, and Dr. HARVEY GAYLORD spoke on behalf of the American representatives, in the absence of the official representative of the United States Government; he also appealed to the British delegate and assured him of American backing. After the other delegates had spoken the company separated. Shortly before they did so the death of von Leyden, the founder of the German Cancer Committee, was whispered round the tables.

Great credit is due to the organizing ability and to the tact of Professor Delbet and Dr. Ledoux-Lebard for the success of a conference bringing together, in intimate intercourse, strong men of varied nationality, holding strong and conflicting opinions on a subject regarding

which they were agreed on one point only—the pressing need for the solution of problems which almost each delegate stated in a different formulary.

#### LITERARY NOTES.

On October 7th *Public Opinion* entered on its fiftieth year of journalistic existence. In honour of the occasion it has issued a special number containing interesting contributions by Sir Oliver Lodge, Mr. Walter Crane, Dr. J. Holland Rose, and others. The writers mainly deal with the events and the development of knowledge in the past half-century.

The practice of sending their patients to go through a course of treatment at some well known Continental spa seems to be on the increase among doctors in every part of Europe, and France offers a wider choice of places for this purpose than almost any other country. But the habitués of Vichy, Cauterets, and Plembières are probably quite unaware of the fact that the "cura" to which they return summer after summer was as fashionable in the later days of the Roman Empire as it is now in the opening years of the twentieth century. The September number of *L'Hygiène* contains an interesting account of the French spas by Francis Chevassu, in which their history is traced from its commencement during the time of the Roman occupation of Gaul down to the present day. It is hardly too much to say that nearly every one of the health resorts now existing in France owes its origin to Roman colonists who discovered the health-giving properties of the various springs, and who appear to have visited them assiduously to drink the water. The *villes d'eau* thus created by the conquering race flourished exceedingly until the advent of the Franks, "simple people," says M. Chevassu, "who, knowing nothing about the luxury of the table, were preserved from the ills of a sedentary life through their habitual state of constant warfare." The stalwart followers of Clovis or Pharamond had neither the need nor the inclination to restore their health by the drinking of mineral waters, and the spas so flourishing at an earlier period, fell into disuse and obscurity. But with the advance of civilization vale tudinarianism reappeared upon the scene; and 500 years after the Frankish invasion of Gaul the spas once more began to be thronged with invalids. Their popularity once recovered, seems never again to have deserted them but it was not until the sixteenth century that they became really fashionable. We read of Montaigne visiting Plombières, whilst Forges, some years later, count Louis XIII and Anne of Austria amongst its patients. The latter place, by the way, was regarded by the Bourbons as peculiarly efficacious to members of the family, and tradition says that Louis XIV owed his existence to a visit paid there by his childless mother. During the reign of the "Roi Soleil" the popularity of the spas increased enormously. Madame de Sévigné's delightful letters contain many references to her year visits to Vichy, and Boileau spent many weeks at Bourbon-l'Archambault in the hopes of curing some trouble with which he was afflicted. The unfortunate man was kept on a diet of asses' milk for five weeks and then copiously bled and purged before he was allowed to begin his treatment proper and take the waters daily. It is sad to learn that, after all, the waters did him no good. This severity was by no means peculiar to Bourbon-l'Archambault; the régime at every "cure" was unpleasantly strict. At Vichy, for instance, the patients were obliged to rise at three in the morning; Spa they were roused at four; whilst at Forges they were allowed to sleep till five. At this last-named place members of the royal family appear to have enjoyed the privilege of an extra hour's repose, we hear that Mademoiselle de Montpensier's rank entitled her to remain undisturbed until six o'clock every morning. In addition to the discomfort of early rising, the patients were strictly dieted, beef, pork, pastries, fruit, peas, and cheese being amongst the prohibited articles of food. This dieting, however, was in the course of time abandoned, owing in great part to the scoffs of encyclopaedists, who, moreover, did much to weaken the prestige of the spas by their outspoken comments upon the futility of the treatment and the ignorance of the docto